

### Abstract of the Invention

The present invention relates to the deep rolling apparatus (8) of a deep rolling machine 1 for crankshafts (3) in which two arms (9, 10) across from each other support a deep rolling roller head (13) or a supporting roller head (14). The supporting roller head (14) has two supporting rollers with parallel axes and the deep rolling roller head (13) has two deep rolling rollers entering the radii or indentation of the main bearing journals or lobe bearing journals of crankshafts (3). In one embodiment of the deep rolling apparatus (8) in scissor-like construction an axial guide roller is provided on the deep rolling roller head (13) and is centered relative to the deep rolling roller head (13), its axis of rotation being perpendicular to the axis of rotation of the crankshaft (3) and having a diameter that is slightly less than the distance between two lubricators of a main bearing journal or lobe journal bearing of the crankshaft.

Fig. 1 applies to the Abstract of the Invention.